



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of
Schnell

Serial No.: 10/724807

Filed: December 1, 2003

For: **Pull Type Gang Mower**

Attorney's Docket No: 5034-002

Examiner: Ms. Alicia M. Torras

Group Art Unit: 3671

MS APPEAL BRIEF PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

CERTIFICATE OF MAILING OR TRANSMISSION [37 CFR 1.8(a)]

I hereby certify that this correspondence is being:

☒ deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Mail Stop Appeal Brief Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

☐ transmitted by facsimile on the date shown below to the United States Patent and Trademark Office at (703) 273-8200.

September 6, 2005

Date

Kathy L. Stehle

Sir:

The present appeal brief is filed in triplicate pursuant to 37 C.F.R. § 1.192. Applicant also encloses a check in the amount of \$250.00 as required by 37 C.F.R. § 1.17(b). Also, enclosed is a request for a 1 month extension of time along with a check in the amount of \$60.00. If additional fees are required please charge them to Deposit Account No. 18-1167.

APPEAL BRIEF

(1) REAL PARTY IN INTEREST

The real party in interest is Tim Schnell.

(2) RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

09/12/2005 WABDELRI 00000038 10724807

01 FC:2402

250.00 DP

09/09/2005 WABDELRI 00000013 10293640 250.00 DP
01 FC:2402
Adjustment date: 09/12/2005 WABDELRI
09/09/2005 WABDELRI 00000013 10293640 -250.00 DP
01 FC:2402

(3) STATUS OF CLAIMS

Claims 1, 2, 4, 6, 7, 10, 11, 13, 14 and 16-34 are pending. Claims 31 and 32 have been allowed. Claims 1, 2, 4, 10, 11, 16, 18, 19, 21-28, 33 and 34 stand rejected. Claims 6, 7, 13, 14, 17, 20 and 29 are objected to. Applicant appeals claims 1, 2, 4, 10, 11, 16, 21-28, 30, 33 and 34. Claims 18 and 19, which stand rejected, are not appealed.

(4) STATUS OF AMENDMENTS

There are no amendments pending.

(5) SUMMARY OF INVENTION

Claim 1 describes a gang type lawn mower system 200 that is designed to be pulled behind a tractor. Spec. p. 11. The lawn mower system 200 includes a wheel supported main frame 202. *Id.* A power source 220 is mounted on the main frame. At least two mower decks 204 are connected to the main frame with each mower deck having a rotary blade. Spec. p. 11. Each mower deck is movably mounted to the main frame and movable from an operative lowered position where the mower deck is operative to cut grass to an elevated position. See Figs. 5-8. A drive is interconnected between the power source 220 and each of the mower decks for driving each of the mower decks. Spec. p. 11. Further, as the respective mower decks move from the operative position to the stowed position, each of the mower decks moves through an angle of at least 91°. Spec. p. 16 and Figs. 5-8.

Claim 33 is directed to a gang type lawn mower system 200 that is designed to be pulled behind a tractor. This gang type lawn mower system 200 includes a wheel supported main frame 202 and a power source 220 mounted on the main frame. See Fig. 5. The system also includes at least two mower decks 204 connected to the main frame with each mower deck having a rotary blade. Spec. p. 11. Each mower deck is movably mounted to the main frame and movable from an operative lowered position where the mower deck is operative to cut grass to an elevated position. Spec. p. 16; Figs. 6-8. A drive interconnects the power source and each of the mower decks 204 for driving the mower decks

such that the mower decks are driven by a single power source mounted on the main frame. Spec. p. 12. Four wheels 212, 214 are secured to the main frame for supporting the main frame. A tongue 216 is pivotally connected to the main frame about a transverse axis that permits the tongue to move up and down with respect to the main frame and to pivot up and down about the transverse axis.

(6) GROUNDS OF REJECTIONS

Claims 1, 2, 16, 21, 22, 26 and 27 are rejected under 35 USC §103(a) as being unpatentable over Miller et al. in view of Aron.

Claims 4 and 30 are rejected under 35 USC §103(a) as being unpatentable over Miller and Aron, and further in view of Allison.

Claim 10 is rejected under 35 USC §103(a) as being unpatentable over Miller, in view of Aron, and in further view of Torras.

Claim 11 stands rejected under 35 USC §103(a) as being unpatentable over Miller, in view of Aron, and in further view of Erdman.

Claims 23-25 are rejected under 35 USC §103(a) as being unpatentable over Miller, in view of Aron, and in further view of Bottenberg.

Claims 28 and 30 are rejected under 35 USC §103(a) as being unpatentable over Miller in view of Bottenberg.

Claim 34 is rejected under 35 USC §103(a) as being unpatentable over Miller in view of Bottenberg, and in further view of Aron.

(7) ARGUMENT

A. The Patent Office has the burden of establishing a prima facie case of obviousness

In rejecting claims under 35 USC §103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. See *In re Fine*, 837 F.2d 1071, 1073, 5 USPQ2d

1596, 1598 (Fed. Cir. 1988). In so doing, the Examiner is expected to make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. *Uniroyal Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1018 (1986); *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the Examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness, Note *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

B. Claim 1 is not obvious in view of Miller and Aron

Claim 1 is as follows:

A gang type lawn mower system adapted to be pulled behind a tractor, comprising:

- a wheel supported main frame;
- a power source mounted on the main frame;
- at least two mower decks connected to the main frame, each mower deck having a rotary blade;
- each mower deck being movably mounted to the main frame and movable from an operative lowered position where the mower deck is operative to cut grass to an elevated stowed position;
- a drive interconnected between the power source and each of the mower decks for driving each of the mower decks whereby the mower decks are driven by a single power source mounted on the main frame; and
- wherein in moving from the operative position to the stowed position each of the mower decks moves through an angle of at least 91°.

1. Combining Aron with Miller requires substantial redesign and reconstruction of Miller

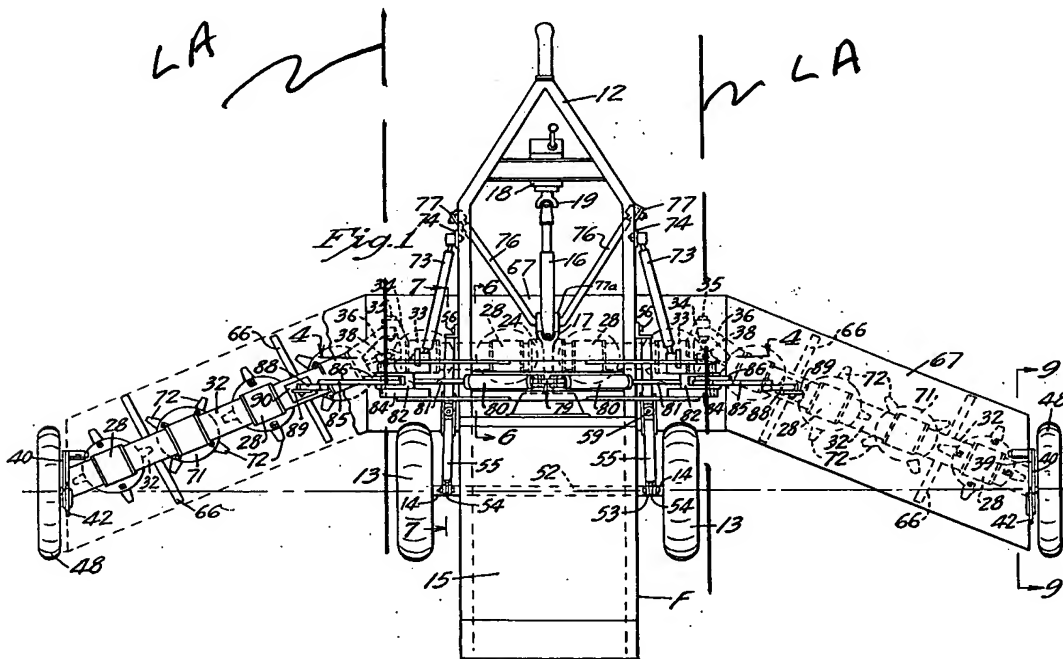
The suggestion to combine references must not require substantial reconstruction or redesign of the primary reference to arrive at the claimed invention. *In re Ratti*, 270 F.2d 810 (C.C.P.A. 1959). The Examiner recognizes that the outer mower decks of Miller do not move through an angle of at least 91° as required by claim 1. However, the Examiner combines Aron with Miller and maintains that it would be obvious to make the Miller mower decks rotate or move through an angle of at least 91°. Applicant respectfully disagrees.

The design and structure of Miller will not permit the mower decks to rotate through 91°. To achieve this range of rotation, wholesale design changes are required. As detailed below, numerous structural obstacles that form a part of the Miller machine overlie the outer mower decks and prevent the mower decks from rotating through 91°. These obstacles must be removed in order to achieve 91° rotation. Additionally, the drive system that interconnects the outer mower decks with the central mower decks is not capable of flexing 90°, and hence new drive systems must be employed. Further, Miller includes a mechanical spring supported flotation system that is intimately integrated into the mower deck lift mechanism that would require redesign and reconstruction if the mower decks were made to move through 91°.

Miller includes three mower decks, a central deck and two outer decks. See Figure 1 of Miller. Each of the outer decks is connected to a supporting structure that underlies the guard or cowl 67 of the central deck. Particularly there is provided a pair of gear boxes 33 underneath the cowl 67 of the central deck. Connected to the outer side of each gear box 33 is a pivoting support structure that permits an adjacent outer mower deck to pivot upwardly. This structure includes a bracket 34 connected to the gear box 33, a bracket 36 that forms a part of the outer deck, and a pivot rod 35 connecting brackets 34 and 36. Miller, col. 3, ll. 54-72 (Figs. 1, 2 and 4). Further, adjacent the pivot

rod 35 and brackets 34, 36, are spline drive shafts 25 and 37 which are interconnected by a universal joint 38.

The pivot rods 35 and adjacent universal joints 38 are designed such that they pivot about a horizontal axis that extends longitudinally of the frame F and in the general direction of movement of the frame. Miller, col. 3, ll. 67-72. Reproduced below is Figure 1 of Miller. These two horizontal axis that extend in the direction of movement of the frame are drawn in and denoted LA.



The outer mower decks of Miller are capable of limited pivotable movement about axes LA. However, the basic design of the Miller drive system, guard or cowl 67 disposed on each of the mower decks, and the main frame structure preclude the outer mower decks from pivoting to even a straight up or vertical position. The cowl 67 of the central mower deck overlies both the pivot rods 35 and the universal joints 37. Note also that the axis LA extend underneath the outer portions of the central cowl 67. Thus, when either of the outer mower decks is pivoted upwardly, there is interference between a number of structural elements and the central cowl 67. More particularly, the brackets 37 extending outwardly from the pivot rods 34 can only move slightly upwardly before they contact the central cowl

67. Hence, pivoting movement of both outer mower decks will be restricted. Likewise, spline shafts 37 extending outwardly from each of the universal joints 38 can only move slightly upwardly before they contact the central cowl 67 and hence upward movement of the spline shafts 37 and their respective outer mower decks are restricted. In both cases the restriction is substantial because the center cowl 67, in order to function as a guard, must be positioned relatively close to the mower blades.

Thus, for these reasons alone the outer mower decks of Miller cannot move through 91° . Substantial redesign and reconstruction would be required to enable them to do so.

Miller also discloses a deck lift mechanism for raising and lowering the outer decks. This lift mechanism on each side of the Miller machine includes a hydraulic cylinder 80 that is connected to member 85 which is in turn connected to a link 88 that extends between the member 85 and the mower deck. As designed, the lift mechanism can only move to the position shown in dotted lines in Figure 4. That is insufficient to move the mower deck through 91° . Hence, the entire lift mechanism would require redesign and reconstruction. In particular, the cylinders 80 would require a different stroke and the length and arrangement of members 85 and 88 would require redesign.

Further, the tires 13 would interfere with a substantial upward movement of the outer mower decks. See Miller, Figure 1. That is, because the two outer mower decks are flared rearwardly. It follows that as they rotate upwardly the rear edge of the cowl 67 on each of the outer mower decks would engage the tires 13 before the mower decks move through an angle of 91° . Hence the Miller machine would require redesigning the position of the tires with respect to the outer mower decks and the repositioning of the tires would bring into play the requirement for further design changes to assure that the machine is properly balanced and meets the highly maneuverability objective set forth in the patent.

Finally, the main frame of the Miller machine extends over the outer mower decks and precludes the decks from even moving to a vertical or 90° position. This is particularly illustrated in Figure 4 below.

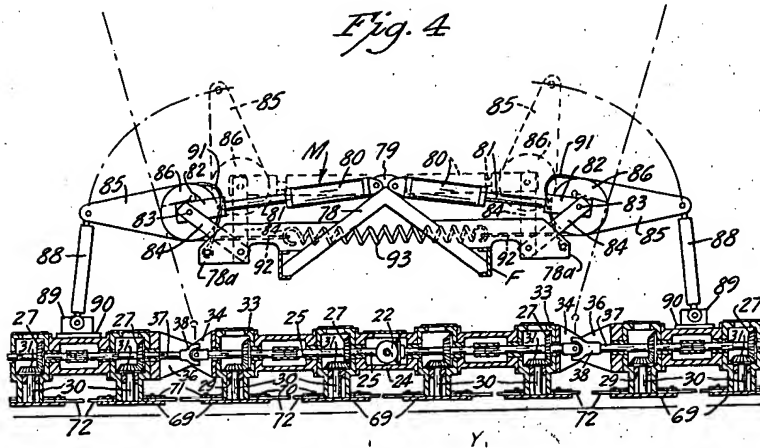


Figure 4 shows the Miller machine as including an overlying main frame 78 that spans a substantial width by the entire machine. Indeed, frame 78 includes outboard ends 78A that overlie the universal joints 38. Thus, as viewed in Figure 4, the maximum amount of rotation that either outer mower deck can achieve is limited by the ends 78A of the frame structure 78. The position of the ends 78 clearly preclude the outer mower decks from rotating to a 90° orientation. Hence, for the outer mower decks of Miller to rotate past 91°, would require that the overlying frame structure 78 be redesigned such that it did not lie in the path of the outer mower decks when the mower decks are rotated.

There is no question that the outer mower decks of Miller are incapable of rotating through 91°. This limitation is imposed by the design and structure of the overall machine, not by any incidental limitation. To provide for 91° rotation would require wholesale redesign and reconstruction of the Miller machine. Any attempt to modify the Miller machine to provide for 91° rotation or more must fail the test of obviousness because of the substantial redesign and reconstruction that would be required.

2. The proffered motivation by the Examiner is legally insufficient

If there is no proper motivation to combine, then the combination is based on impermissible hindsight and the Examiner has failed to make out a prima facie case of obviousness. Here the Examiner's proffered motivation is not legally sufficient.

The Examiner states:

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the pivot angle of Aron on the device of Miller in order to reduce the bulk of the machine.

The Miller machine already possesses this advantage. That is, the outer mower decks are pivotable to an elevated position. This clearly reduces the bulk of the Miller machine. Indeed, Mr. Miller touts this advantage in the patent:

To facilitate the passage of our rotary mower through gates and other relatively narrow passages and to ensure that the respective cutter assemblies will be prevented from bouncing while passing over rough terrain at relatively high speeds, we have provided a combined elevating and depressing mechanism to be used in connection with these assemblies.

Miller patent, col. 5, ll. 66-72.

Applicant acknowledges that there is a difference in the angle of Miller's mower deck and Aron's hay rake. Once the primary reference has recognized the problem and substantially dealt with the problem, is it appropriate to base motivation and hence obviousness on a relatively small incremental change, especially where there are substantial tradeoffs in terms of redesign and reconstruction required. At some point the obviousness analysis becomes more of an academic exercise than a realistic view of what a person of ordinary skill in the art would see as obvious. The more realistic approach, it is urged is that when the primary reference recognizes the problem that forms the basis of the proffered motivation and has dealt with the problem to a substantial degree, that small differences in how the primary and secondary references dealt with the problem is insufficient to warrant a finding of motivation and hence obviousness. It is urged that this is especially true where the modifications required are not straightforward and/or involve tradeoffs.

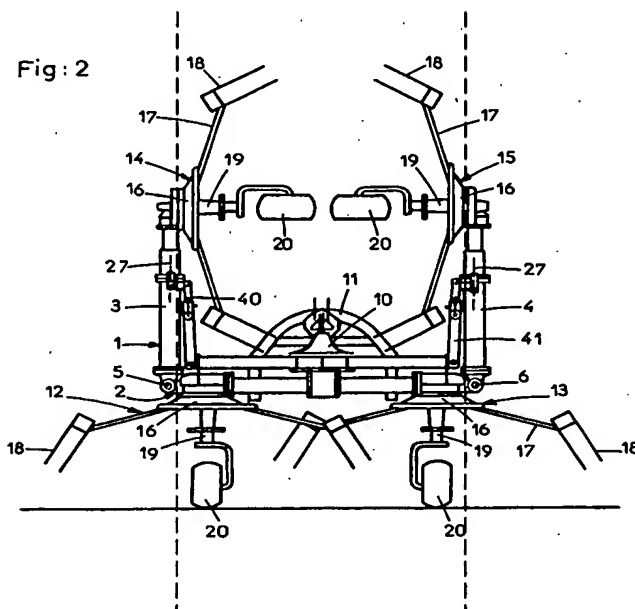
3. Aron does not teach rotation through an angle of at least 91°.

The Examiner utilizes Aron as a basis for maintaining that it would be obvious for Miller to rotate his mower decks through an angle of at least 91°. Implicit in this position is that the Examiner believed

that Aron teaches rotation through an angle of at least 91°. A close examination of Aron and its specification reveals that it does not make such a teaching.

At the outset it is noted that Aron is a hay rake and not a mower, and that Aron does not include a mower deck. Thus, the initial inquiry is: what structure of area of Aron does one view to determine if there is the 91° teaching?¹ Applicant believes that the focus should be on Figure 2 of Aron. However, one has to determine what part of Aron's structure should be viewed in determining whether there is a teaching of a rotation past a 91° angle. Each hay rake assembly of Aron includes a rotating hub 16, a series of arms 17 secured and extending therefrom, and a series of forks secured to the outer end of the arms 17. As viewed in Figure 5, there is provided an unnumbered housing that extends around the hub 16. It is believed that the focus should be on the hub 16 or the housing that caps the hub. Realistically, the housing is the more appropriate focal point because the housing remains stationary just as a mower deck does while the hub 16, arms 17 and forks 18 rotate like the blades within a mower deck.

Reproduced below is Figure 2 of the Aron patent.



¹ It is unclear what portion of Aron that the Examiner considered moved through at least 91°. The Examiner never addressed how this factual determination was arrived at.

Construction lines have been drawn through the housing capping the respective hubs 16. These construction lines appear normal or perpendicular to the ground line that supports the hay rake. These construction lines do not appear to be past 91°. Furthermore, Aron's written specification is silent as to the angle of the housing or to the hub. As noted above, the drawings suggest that the housing of the hub or the hub itself assume a 90° position when the hay rake assumes the elevated position. From the drawing it cannot be clearly concluded that the hub or hub housing rotates past 91°. That is a factual finding that is necessary to support the Examiner's positions. The burden of proof is on the Examiner in this case, and it is respectfully urged that there is no factual support in the Aron disclosure that teaches rotation beyond 91°. For this reason, the obviousness rejection should be reversed.

C. Claim 2 is not obvious in view of Aron and Miller

Claim 2 is as follows:

The gang type lawn mower of claim 1 wherein the main frame lies between two mower decks, and wherein in the lowered operative position the mower decks extend outwardly from the main frame;
wherein the main frame does not include a blade for cutting grass;
and
each mower deck being pivotally connected along one side of the main frame such that when the mower deck assumes a stowed position, the underside of the mower deck faces at least partially upwardly and the entire mower deck is supported by the main frame.

Claim 2 calls for the underside of the mower deck to face at least partially upwardly. The Examiner relies on Aron to show this feature of the claimed invention. The Board is urged to view Figures 6-8 of Applicant's application. Note that the underside of the mower deck has pivoted substantially beyond 90° and to the point that the underside at least partially faces upwardly. This is particularly illustrated in Figure 8 reproduced below.

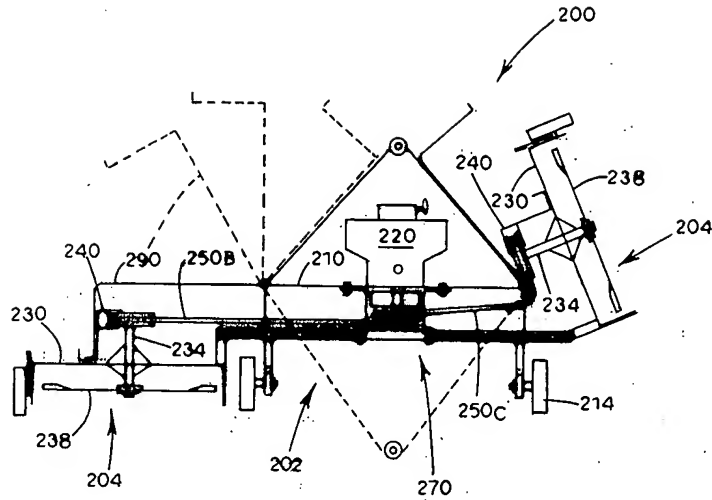


Fig. 8

That is to be compared with Figure 2 of Aron as shown above. The housing surrounding the hub 16 faces directly outwardly. The facing does not face at least partially upwardly. There is no factual support in Aron for a finding that the housings surrounding the hub face at least partially upwardly. With no evidence to support a finding that the housing of Aron faces partially upwardly, the Examiner's obviousness rejection of claim 2 must be reversed.

D. Claims 4 and 30 are not obvious in view of Miller, Aron and Allison

Claims 4 and 30 are as follows:

4. The gang type lawn mower system of claim 1 wherein the drive interconnected between the power source and the mower decks include a belt drive; and wherein the gang type lawn mower system includes a belt tensioner for maintaining a tension on the belt drive.

30. The gang type lawn mower system of claim 18 wherein the drive includes a belt drive and a belt tensioner for maintaining a tension on the belt drive.

Claim 4 recites a belt drive that is interconnected between the power source and the mower decks, and also recites a belt tensioner for maintaining a tension on the belt drive.

Even assuming that Allison shows a belt drive and a tensioner, the Examiner's motivation for combining falls short of establishing a prima facie case of obviousness. The Examiner's proffered motivation is as follows:

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the tensioner of Allison on the drive of Miller and Aron in order to tighten the belt.

This proffered motivation presumes that Miller has a belt drive. There is no belt drive in Miller. The drive system, including the drive to the mower decks, is carried out by a rigid drive shafts that as discussed above includes universal joints. See, e.g., Miller, col. 3, ll. 17-31. The Examiner's proffered motivation deals only with combining the tensioner of Allison with Miller as modified by Aron. Again, Aron has no belt drives either. For this reason alone, the prima facie case of obviousness has not been made out.

Stated in another way, the Examiner never took the position that it would be obvious to substitute the belt drive of Allison for the rigid drive shafts of Miller. It would be difficult to articulate a motivation for substituting a belt drive for the rigid drive shafts of Miller.

As to the motivation for combining the tensioner, the entire articulated motivation is conclusionary. Belt tensioners tension. However, that in itself does not form a motivation to combine. There must be some advantage or desirability beyond simply what the device, in its most fundamental form, is designed to do.

E. Claim 10 is not obvious over Miller, Aron and Torras

Claim 10 is as follows:

The gang type lawn mower system of claim 1 wherein the main frame includes at least two spaced apart caster wheels disposed on the front portion of the main frame.

Claim 10 is directed to caster wheels being disposed on the front portion of the main frame. The Examiner has relied on Torras for the caster wheel teaching, and then has proposed modifying Miller to include caster wheels.

It is fundamental when the primary reference teaches against the combination that there can be no motivation to combine. This is a classical case of teaching away. Mr. Miller states:

It should also be noted that we have completely eliminated any requirement for castored wheels to support the cutter units. Castored wheels, which have been commonly used previously in an attempt to keep skidding at a minimum, are unsatisfactory because they wear excessively when used at high speeds, thereby necessitating frequent replacements and increasing costs of operations substantially. With a sweep-back or sweep-forward arrangement of cutter units, castored wheels are not required and, in fact, are not as satisfactory. A castored wheel, when driven at relatively high speed will "shimmy" violently and will set up extreme vibrations within the entire machine. Such vibrations, of course, are highly undesirable for they increase the wear on the machine parts and prevent it from operating in a satisfactory manner.

Miller, col. 10, ll. 63-75; col. 11, ll. 1-6.

It could not be clearer. A person of ordinary skill viewing the Miller reference would never be motivated to modify the same to include caster wheels.

F. Claim 11 is not obvious in view of Miller, Aron and Erdman

Claim 11 is as follows:

The gang type lawn mower system of claim 1 including at least one belt guard extending from the main frame over a portion of one mower deck for guarding a belt drive that forms a part of the drive interconnected between the power source and the mower decks.

Claim 11 is directed to the gang type lawn mower described in claim 1, but wherein the belt drive includes a belt guard, and wherein there is a belt guard extending from the main frame over a portion for guarding the belt. Like the rejection of claims 4 and 30 discussed above, the Examiner has presumed that Miller already includes a belt drive. Miller does not include a belt drive. The drive in Miller is a rigid drive system that includes a number of drive shafts and universal joints connected, which act to transfer torque from the power source down to the various mower decks. Based on this alone, the prima facie case of obviousness with respect to claim 11 is not met.

Even if Miller included a belt drive, or even if the Examiner had made an attempt and successfully shown that it would be obvious to utilize a belt drive in Miller, the motivation for the belt guard is flawed. The Examiner states as follows:

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the guards of Erdman on the device of Miller and Aron in order to provide protection.

Again, this motivation is cryptic and conclusionary. It states the obvious function of the device in question. A motivation to combine should be supported by evidence indicating the advantage or desirability of utilizing the structure in question. This requires something other than the obvious conclusion that the device will serve its basic intended function.

G. Claims 23-25 are not obvious in view of Miller, Aron and Bottenberg

Claims 23-25 are as follows:

23. The gang type lawn mower system of claim 1 including a tongue pivotally connected to the mainframe about a transverse axis such that the tongue can move up and down about the axis.

24. The gang type lawn mower system of claim 23 including front and rear wheels secured to the mainframe.

25. The gang type lawn mower system of claim 1 including a tongue pivotally connected to the mainframe about a transverse axis such that the tongue can move up and down with respect to the mainframe about the axis; and wherein there is provided front and rear wheels mounted to the mainframe.

These claims relate to the gang type lawn mower system including a tongue pivotally mounted about a transverse axis. Further, claim 24 and 25 provide for front and rear wheels.

The Examiner proffers the following motivation:

It would have been obvious to one having ordinary skill of the art at the time the invention was made to include the pivotable hinge of Bottenberg on the device of Miller and Aron in order to achieve different cutting heights.

The Examiner proffers that the pivoting tongue would enable the modified Miller mower to achieve different cutting heights. A pivoting tongue has nothing whatsoever to do with adjusting the mower for different cutting heights. Bottenberg achieves different cutting heights by adjusting the height of the wheels with respect to the mower deck. A person of ordinary skill would not incorporate a pivoting tongue into the Miller mower system in order to achieve different cutting heights. As shown in Figure 2, the cutting height of the Miller mower deck is established by adjusting the front wheels 48 with respect to the mower deck and engaging in further adjustment as described in Miller, col. 4, ll. 44-63. Pivotal mounting the tongue to the main frame will have no effect in adjusting the cutting height. Indeed a rigid tongue can affect cutting height as the mower goes over hills and undulations. The purpose of a pivoting tongue is to avoid having any effect on cutting height. Thus, the proffered motivation for providing the pivoting tongue is unsupported. There is no factual basis for the articulated motivation. Thus, a prima facie case of obviousness has not been made out.

H. Claims 28 and 33 are not obvious over Miller and Bottenberg

Applicant will focus on claim 33, which is as follows:

1. A gang type lawn mower system adapted to be pulled behind a tractor, comprising:
 - a. a wheel supported mainframe;
 - b. a power source mounted on the mainframe;
 - c. at least two mower decks connected to the mainframe, each mower deck having a rotary blade;
 - d. each mower deck being movably mounted to the mainframe and movable from an operative lowered position where the mower deck is operative to cut grass to an elevated stowed position;
 - e. a drive interconnected between the power source and each of the mower decks for driving each of the mower decks whereby the mower decks are driven by a single power source mounted on the mainframe;
 - f. four wheels secured to the mainframe for supporting the mainframe; and
 - g. a tongue pivotally connected to the mainframe about a transverse axis that permits the tongue to move up and down with respect to the mainframe and to pivot up and down about the main axis.

The Examiner acknowledges that Miller fails to show four wheels secured to the main frame for supporting the main frame and a tongue that is pivotally connected to the main frame about a transverse axis. However, the Examiner states that Bottenberg shows the structure and then proffers the following motivation to combine:

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the pivotal hinge of Bottenberg to the device of Miller in order to achieve different cutting heights.

If there is an advantage to a pivoting tongue, it is just the opposite from the Examiner's proffered motivation. That is, the reason to utilize a pivoting tongue is to assure that the tongue has no effect on the cutting height of the mower decks. Indeed, that is the advantage that is gained by Applicant's pivoting tongue. As seen in Figure 5 of Applicant's application, as the gang of lawn mowers is pulled over undulating terrain, the pivoting tongue assures that the gang mower system can move and undulate over the ground being traversed. If the tongue is fixed and rigid, like in Miller, there is a tendency for the mower units to be raised and lowered by the tongue itself as the mower units traverse uneven ground. Again, by pivotally connecting the tongue to the main frame of the mower units, this removes the tongue from influencing the attitude of the individual mower units.

The Examiner argued that a pivoting tongue would enable Miller to achieve different cutting heights. Respectfully, that is incorrect. There is no indication where the Examiner found this proffered motivation. Respectfully, there is no factual basis for this proffered motivation. Indeed, as eluded to above, just the opposite is true. By utilizing a tongue that pivots about a transverse axis to the main frame, enables one to achieve an arrangement where the pivoting tongue does not and cannot achieve or effect different cutting heights.

Therefore, the Examiner has failed to make out a prima facie case of obviousness with respect to claim 33 and also with respect to claim 28.

I. Claim 34 is not obvious in view of Miller, Bottenberg and Aron

Claim 34 is as follows:

The gang type lawn mower system of claim 33 wherein each mower deck is pivotally mounted to the mainframe and movable through an angle of at least 91° as each mower deck moves from the operative position to the stowed position.

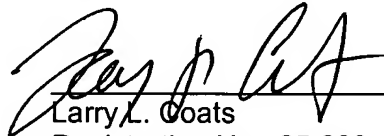
This issue has been extensively argued above. For that reason, those arguments will not be repeated.

Conclusion

For the foregoing reasons, the Board is respectfully requested to reverse the Examiner on all claims argued herein.

Respectfully submitted,

COATS & BENNETT, P.L.L.C.



Larry L. Coats
Registration No.: 25,620

Dated: September 6, 2005

P.O. Box 5
Raleigh, NC 27602
Telephone: (919) 854-1844
Facsimile: (919) 854-2084

(9) APPENDIX

Claims

1. A gang type lawn mower system adapted to be pulled behind a tractor, comprising:
 - a. a wheel supported main frame;
 - b. a power source mounted on the main frame;
 - c. at least two mower decks connected to the main frame, each mower deck having a rotary blade;
 - d. each mower deck being movably mounted to the main frame and movable from an operative lowered position where the mower deck is operative to cut grass to an elevated stowed position;
 - e. a drive interconnected between the power source and each of the mower decks for driving each of the mower decks whereby the mower decks are driven by a single power source mounted on the main frame; and
 - f. wherein in moving from the operative position to the stowed position each of the mower decks moves through an angle of at least 91°.
2. The gang type lawn mower of claim 1 wherein the main frame lies between two mower decks, and wherein in the lowered operative position the mower decks extend outwardly from the main frame; wherein the main frame does not include a blade for cutting grass; and each mower deck being pivotally connected along one side of the main frame such that when the mower deck assumes a stowed position, the underside of the mower deck faces at least partially upwardly and the entire mower deck is supported by the main frame.
4. The gang type lawn mower system of claim 1 wherein the drive interconnected between the power source and the mower decks include a belt drive; and wherein the gang type lawn mower system includes a belt tensioner for maintaining a tension on the belt drive.

10. The gang type lawn mower system of claim 1 wherein the main frame includes at least two spaced apart caster wheels disposed on the front portion of the main frame.
11. The gang type lawn mower system of claim 1 including at least one belt guard extending from the main frame over a portion of one mower deck for guarding a belt drive that forms a part of the drive interconnected between the power source and the mower decks.
16. The gang type lawn mower system of claim 1 wherein the main frame includes an upper platform having the power source mounted thereon.
18. (Not appealed, included because claims 26, 27, 28 and 30 are appealed and depend therefrom)
A gang type lawn mower system adapted to be pulled behind a tractor, comprising:
- a. a power source frame adapted to attach to the tractor and having an area for receiving and supporting an internal combustion engine thereon;
 - b. an internal combustion engine mounted on the power source frame and having an output power shaft extending therefrom;
 - c. the power source frame having a plurality of wheels and a pair of opposed side areas;
 - d. at least two mower decks movably mounted to the power source frame, each mower deck movably mounted to one side area of the power source frame such that the power source frame lies between the two mower decks and wherein each mower deck is operative to move independently of the power source frame;
 - e. each mower deck having a blade associated therewith for cutting grass;
 - f. a drive extending from the power source frame to each of the mower decks and wherein the drive transfers power from the internal combustion engine to each of the mower decks so as to drive the blades associated with the mower decks;
 - g. each mower deck being movable with respect to the power source frame from a lowered operative position for cutting grass to an elevated stowed position;

- h. wherein in the elevated stowed position each mower deck is turned at least partially on the mower deck's side such that an underside of the mower deck faces outwardly or at least slightly upwardly; and
 - i. wherein the mower decks are exclusively driven by the internal combustion engine mounted on the power source frame that in operation trails the tractor.
21. The gang type lawn mower system of claim 1 wherein in the stowed position at least a portion of the mower deck overlies a portion of the mainframe.
22. The gang type lawn mower system of claim 21 wherein in the stowed position the underside of the mower deck faces upwardly and at least slightly outwardly.
23. The gang type lawn mower system of claim 1 including a tongue pivotally connected to the mainframe about a transverse axis such that the tongue can move up and down about the axis.
24. The gang type lawn mower system of claim 23 including front and rear wheels secured to the mainframe.
25. The gang type lawn mower system of claim 1 including a tongue pivotally connected to the mainframe about a transverse axis such that the tongue can move up and down with respect to the mainframe about the axis; and wherein there is provided front and rear wheels mounted to the mainframe.
26. The gang type lawn mower system of claim 18 wherein each mower deck is movable through an angle of at least 91° when moving from the operative position to the stowed position.
27. The gang type lawn mower system of claim 26 wherein each deck is pivotally connected to one side of the power source frame and pivotable through an angle of at least 91° as the mower deck moves between the operative and stowed position.
28. The gang type lawn mower system of claim 18 including front and rear wheels mounted to the power source frame; and a tongue pivotally connected to the power source frame and projecting therefrom and wherein the tongue is pivotally mounted about a transverse axis such that the tongue can be moved up and down about the axis, and with respect to the power source frame.

30. The gang type lawn mower system of claim 18 wherein the drive includes a belt drive and a belt tensioner for maintaining a tension on the belt drive.
33. A gang type lawn mower system adapted to be pulled behind a tractor, comprising:
- a. a wheel supported mainframe;
 - b. a power source mounted on the mainframe;
 - c. at least two mower decks connected to the mainframe, each mower deck having a rotary blade;
 - d. each mower deck being movably mounted to the mainframe and movable from an operative lowered position where the mower deck is operative to cut grass to an elevated stowed position;
 - e. a drive interconnected between the power source and each of the mower decks for driving each of the mower decks whereby the mower decks are driven by a single power source mounted on the mainframe;
 - f. four wheels secured to the mainframe for supporting the mainframe; and
 - g. a tongue pivotally connected to the mainframe about a transverse axis that permits the tongue to move up and down with respect to the mainframe and to pivot up and down about the main axis.
34. The gang type lawn mower system of claim 33 wherein each mower deck is pivotally mounted to the mainframe and movable through an angle of at least 91° as each mower deck moves from the operative position to the stowed position.